

efunda

engineering fundamentals

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    - AA 1xxx
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    - 2xx.0 or x2xx.0
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AA 1100

CategoryAluminum Alloy

ClassWrought

Composition

Element	Weight %
Al	99.00 (min)
Cu	0.12

Mechanical Properties

Properties		Conditions	
		T (°C)	Treatment
Density (×1000 kg/m <sup>3</sup> )	2.71	25	
Poisson's Ratio	0.33	25	
Elastic Modulus (GPa)	70-80	25	
Tensile Strength (Mpa)	110		
Yield Strength (Mpa)	105	25	H12 <a href="#">more</a>
Elongation (%)	12		
Reduction in Area (%)			
Hardness (HB500)	28	25	H12 <a href="#">more</a>
Shear Strength (MPa)	69	25	H12 <a href="#">more</a>
Fatigue Strength (MPa)	41	25	H12 <a href="#">more</a>

Thermal Properties

Properties		Conditions	
		T (°C)	Treatment

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<b>Thermal Expansion</b> ( $10^{-6}/^{\circ}\text{C}$ )	23.6	20-100	
<b>Thermal Conductivity</b> (W/m-K)	218	25	H18 <a href="#">more</a>

### **Electric Properties**

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<b>Properties</b>	<b>Conditions</b>		
	<b>T (<math>^{\circ}\text{C}</math>)</b>	<b>Treatment</b>	
<b>Electric Resistivity</b> ( $10^{-9}\text{W-m}$ )	30	25	H18 <a href="#">more</a>

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